

This listing of the claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS

Claim 1 (previously presented): A method for forming a telescoped nanotube, comprising:

- (a) providing a multiwall nanotube comprised of an outer shell, a plurality of concentric inner shells, and an inner core, each of said outer shell, inner shells, and inner core having a first end and a second end in opposition thereto;
- (b) attaching the first end of the outer shell to a conductive substrate so as to be in electrical communication therewith;
- (c) removing the second end of the outer shell and of the concentric inner shells, revealing the second end of the inner core;
- (d) attaching a nanomanipulator to the second end of the inner core, said nanomanipulator effective to partially extract the inner core from the outer shell; and
- (e) partially extracting the inner core from the outer shell and the concentric inner shells, thereby telescoping one segment of the multiwall nanotube.

Claim 2 (original): The method of claim 1, further comprising:

- (f) detaching the nanomanipulator from the inner core.

Claim 3 (previously presented): The method of claim 2, wherein the inner core is comprised of secondary concentric inner shells and a secondary inner core, each having first and second opposing ends, and steps (c) to (f) are repeated on the inner core so that multiple segments of nanotube are sequentially telescoped.

Claim 4 (previously presented): The method of claim 1, wherein the concentric inner shells comprise a series of shorter, fully capped, nanotube segments.

Claim 5 (original): The method of claim 1, wherein the multiwall nanotube comprises a material selected from the group consisting of GaSe; NiCl₂; TiO₂; Sb₂S₃; K₄Nb₆O₁₇; PbNb_mS_(2m+1), wherein m is an integer from 1 to 10; B_xC_yN_z, wherein x is about 0 to about 1, y is about 0 to

about 3, and z is about 0 to about 4; MX_n wherein M is selected from the group consisting of Nb, V, Zr, Hf, Re, Pt, Ta, W, and Mo, X is selected from the group consisting of S, Se, and Te, and n is 2 or 3; and $W_aMo_bC_cS_2$ wherein a is about 0 to about 1, b is about 0 to about 3, and c is about 0 to about 4.

Claim 6 (original): The method of claim 5, wherein the material is carbon.

Claim 7 (original): The method of claim 1, wherein the number of inner shells ranges from about 3 to about 1000.

Claim 8 (original): The method of claim 7, wherein the number of inner shells ranges from about 3 to about 100.

Claim 9 (original): The method of claim 8, wherein the number of inner shells ranges from about 3 to about 50.

Claim 10 (original): The method of claim 1, wherein step (c) is conducted using a shaping electrode to remove material from the second end of the outer shell while the nanotube and the shaping electrode are under a potential difference.

Claim 11 (original): The method of claim 10, wherein the potential difference is no more than about 10 volts.

Claim 12 (original): The method of claim 11, wherein the potential difference is no more than about 5 volts.

Claim 13 (original): The method of claim 12, wherein the potential difference is about 0.5 to about 3.0 volts.

Claim 14 (original): The method of claim 10, wherein the potential of the nanotube is at or near ground.

Claim 15 (original): The method of claim 10, wherein the shaping electrode contacts the nanotube during step (c).

Claim 16 (original): The method of claim 10, wherein the shaping electrode does not contact the nanotube during step (c).

Claim 17 (previously presented): The method of claim 1, wherein steps (c) and (d) occur in simultaneously.

Claim 18 (withdrawn): A device comprising a telescoped multiwall nanotube comprised of:

- (a) an outer shell having a cylindrical wall, a closed end, and an interior cavity defined by the cylindrical wall and the closed end; and
- (b) a telescoped segment partially housed within the interior cavity of the outer shell and partially extending from the outer shell, wherein said telescoped segment has a cylindrical segment wall, a closed segment end, and a segment cavity.

Claim 19 (withdrawn): The device of claim 18, wherein the telescoped segment comprises a plurality of concentric telescoped segments each partially housed within the segment cavity of the concentric telescoped segment surrounding it and each having a portion partially extending from the segment cavity of the telescoped segment in which it is housed.

Claim 20 (withdrawn): The device of claim 19, further comprising an innermost concentric telescoped segment having a closed end on the partially extended portion.

Claim 21 (withdrawn): The device claim 20, wherein the multiwall nanotube comprises a material selected from the group consisting of: GaSe; NiCl₂; TiO₂; Sb₂S₃; K₄Nb₆O₁₇; PbNb_mS_(2m+1), wherein m is an integer from 1 to 10; B_xC_yN_z, wherein x is about 0 to about 1, y is

about 0 to about 3, and z is about 0 to about 4; MX_n wherein M is selected from the group consisting of Nb, V, Zr, Hf, Re, Pt, Ta, W, and Mo, X is selected from the group consisting of S, Se, and Te, and n is 2 or 3; and $W_aMo_bC_cS_2$ wherein a is about 0 to about 1, b is about 0 to about 3, and c is about 0 to about 4.

Claim 22 (withdrawn): The device of claim 21, wherein the material is carbon.

Claim 23 (withdrawn): The device of claim 18, wherein the concentric telescoped segment is comprised of from about 3 to about 1000 concentric inner shells.

Claim 24 (withdrawn): The device of claim 23, wherein the concentric telescoped segment is comprised of from about 3 to about 100 concentric inner shells.

Claim 25 (withdrawn): The device of claim 24, wherein the concentric telescoped segment is comprised of from about 3 to about 50 concentric inner shells.

Claim 26 (withdrawn): The device of claim 18, wherein the concentric telescoped segment is movable.

Claim 27 (withdrawn): The device of claim 26, wherein the concentric telescoped segment provides a static spring force.

Claim 28 (withdrawn): The device of claim 26, wherein the concentric telescoped segment provides for substantially frictionless rotation.

Claim 29 (withdrawn): The device of claim 28, wherein the concentric telescoped segment further provides for substantially frictionless retraction.

Claim 30 (withdrawn): A bearing device comprising a telescoped multiwall nanotube comprised of:

(a) an outer shell having a cylindrical wall, a closed end, and an interior cavity defined by the cylindrical wall and the closed end; and

(b) a telescoped segment partially housed within the interior cavity of the outer shell and partially extending from the outer shell, wherein said telescoped segment has a cylindrical segment wall, a closed segment end, and a segment cavity, wherein the concentric telescoped segment is movable.

Claim 31 (withdrawn): A switch device comprising a telescoped multiwall nanotube comprised of:

(a) an outer shell having a cylindrical wall, a closed end, and an interior cavity defined by the cylindrical wall and the closed end; and

(b) a telescoped segment partially housed within the interior cavity of the outer shell and partially extending from the outer shell, wherein said telescoped segment has a cylindrical segment wall, a closed segment end, and a segment cavity, wherein the concentric telescoped segment is movable.

Claim 32 (withdrawn): A resistance potentiometer device comprising a telescoped multiwall nanotube comprised of:

(a) an outer shell having a cylindrical wall, a closed end, and an interior cavity defined by the cylindrical wall and the closed end; and

(b) a telescoped segment partially housed within the interior cavity of the outer shell and partially extending from the outer shell, wherein said telescoped segment has a cylindrical segment wall, a closed segment end, and a segment cavity, wherein the concentric telescoped segment is movable.